WHAT IS CLAIMED IS:

1. A hollow glass microsphere having an average particle size of at most 15 μm based on volume, a maximum particle size of at most 30 μm and an average particle density of from 0.1 to 1.5 g/cm^3, which has a glass composition consisting essentially of the following components by mass%:

SiO_2	50.0-90.0%,
Al_2O_3	10.0-50.0%,
B_2O_3	0-12.0%,
$Na_2O+K_2O+Li_2O$	0-1.0%,
CaO	0-10.0%,
MgO	0-10.0%,
BaO+SrO	0-30.0%.

2. The hollow glass microsphere according to Claim 1, wherein a boron concentration in the glass composition is at least 3 mass% as B_2O_3 and an eluted amount of boron measured by the following method is at most 300 ppm of a sample mass amount:

Method for measuring an eluted amount of boron: 200 cm^3 of ethanol and 200 cm^3 of distilled water are added to 12.5 g of a sample, and the resultant mixture was stirred at 80°C for 1 hour, and a solid content is filtrated, and a boron amount dissolved in a filtrate is determined, and the eluted amount is expressed by a proportion to a sample mass amount.

3. The hollow glass microsphere according to Claim 2,

wherein the average particle size is at most 10 μm based on volume, the maximum particle size is at most 20 μm, and the average particle density is from 0.1 to 1.0 g/cm^3.

4. The hollow glass microsphere according to Claim 2, wherein the glass composition consists essentially of the following components by mass%:

SiO_2	50.0-75.0%,
Al_2O_3	10.0-25.0%,
B_2O_3	0-10.0%,
$Na_2O+K_2O+Li_2O$	0-0.5%,
CaO	2.0-8.0%,
MgO	2.0-8.0%,
BaO+SrO	5.0-25.0%.

5. A method for producing a hollow glass microsphere, which comprises adding a combustible liquid to glass starting materials containing a foaming component, preparing a slurry of glass starting materials having an average particle size of at most 3.0 μm by wet-pulverizing, converting the slurry into liquid droplets containing the starting materials, and heating the liquid droplets to prepare hollow glass microspheres having an average particle size of at most 15 μm based on volume, a maximum particle size of at most 30 μm and an average particle density of from 0.1 to 1.5 g/cm^3 and consisting essentially of the following glass composition:

SiO_2	50.0-90.0%,
Al_2O_3	10.0-50.0%,
B_2O_3	0-12.0%,
$Na_2O+K_2O+Li_2O$	0-1.0%,
CaO	0-10.0%,
MgO	0-10.0%,
BaO+SrO	0-30.0%.

6. The method for producing a hollow glass microsphere according to Claim 5, wherein a boron concentration in the glass composition is at least 3 mass% as B_2O_3, and an eluted amount of boron measured by the following method is at most 300 ppm of a sample mass amount:

Method for measuring an eluted amount of boron: 200 cm^3 of ethanol and 200 cm^3 of distilled water are added to 12.5 g of a sample, and the resultant mixture was stirred at 80°C for 1 hour, and a solid content is filtrated, and a boron amount dissolved in a filtrate is determined, and the eluted amount is expressed by a proportion to a sample mass amount.

7. The method for producing a hollow glass microsphere according to Claim 5, wherein the average particle size is at most 10 μm based on volume, the maximum particle size is at most 20 μm, and the average particle density is from 0.1 to 1.0 g/cm^3.

8. The method for producing a hollow glass microsphere according to Claim 5, wherein the glass composition consists essentially of the following components by

mass%:

SiO_2	50.0-75.0%,
Al_2O_3	10.0-25.0%,
B_2O_3	0-10.0%,
$Na_2O+K_2O+Li_2O$	0-0.5%,
CaO	2.0-8.0%,
MgO	2.0-8.0%,
BaO+SrO	5.0-25.0%.

9. The method for producing a hollow glass microsphere according to Claim 5, wherein a material generating water vapor, carbonic acid gas, sulfur oxide gas or nitrogen oxide gas by heating is added to the glass starting materials.

10. The method for producing a hollow glass microsphere according to Claim 5, wherein the combustible liquid is at least one member selected from the group consisting of alcohols selected from methanol, ethanol and isopropyl alcohol, ethers, kerosine, gas oil and heavy oil.

11. The method for producing a hollow glass microsphere according to Claim 5, wherein a concentration of the glass starting materials in the slurry is from 5 to 50 wt%.

12. The method for producing a hollow glass microsphere according to Claim 5, wherein a concentration of the glass starting materials in the slurry is from 10 to 40 wt%.

13. The method for producing a hollow glass microsphere

according to Claim 5, wherein the liquid droplets are prepared by spraying under pressure, ultrasonic wave, centrifugal force or static electricity.

14. The method for producing a hollow glass microsphere according to Claim 5, wherein the liquid droplets have a size of from 0.1 to 70 μm.

15. The method for producing a hollow glass microsphere according to Claim 5, wherein the liquid droplets are heated at a temperature of from 300 to 1,800°C.

16. The method for producing a hollow glass microsphere according to Claim 5, wherein the prepared hollow glass microspheres are recovered by a cyclone, a bag filter, a scrubber or a packed tower.

17. The method for producing a hollow glass microsphere according to Claim 5, wherein the recovered hollow glass microspheres are subjected to flotation-separating treatment with water or alcohol.

18. The method for producing a hollow glass microsphere according to Claim 5, wherein the recovered hollow glass microspheres are classified by a classifying treatment.

19. The method for producing a hollow glass microsphere according to Claim 5, wherein a water slurry of recovered powder or the slurry recovered by flotation-separating method is subjected to centrifugal filtration, filtration under reduced pressure, or pressure filtration to separate solid and liquid, and washing is carried out by continuously supplying a washing water to a filter cake

to remove salts.

20. The method for producing a hollow glass microsphere according to Claim 5, wherein a filtration cake obtained by the solid-liquid separation is diluted with water again to prepare a slurry, and the slurry is fully stirred and subjected to filtration treatment repeatedly from one to several times to remove residual salts and impurities.